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REMARKS

Claims 1, 3 and 6-27 are pending in the present Application. No claims have been canceled or amended, leaving Claims 1, 3 and 6-27 for further consideration. Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1, 3 and 6-15 stand rejected under 35 U.S.C. § 112, First Paragraph, as allegedly failing to comply with the written description requirement. More particularly, the Examiner states that "The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e., the phrase 'adjusted before.'" Applicants respectfully traverse this rejection.

It appears as though the Examiner has not considered the previously made amendment made to paragraph [0070] (Amendment filed July 14, 2005), wherein the language adjusted "before being subjected to either of the transesterification reaction or the polycondensation reaction" was added to the specification to provide proper antecedent basis to this language in the claim. Support for that amendment was found at least in originally filed Claim 2.

Applicants' further submit that:

The claims as filed in the original specification are part of the disclosure and therefore, if an application as originally filed contains a claim disclosing material not disclosed in the remainder of the specification, the applicant may amend the specification to include the claimed subject matter. *In re Benno*, 768 F.2d 1340, 226 USPQ 683 (Fed. Cir. 1985).

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Applicants respectfully submit that the claimed invention has proper antecedent basis in the specification and is described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Accordingly, Applicants respectfully request that this rejection be withdrawn.

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Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 3 and 6-27 stand rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent No. 5,652,275 to Buysch et al. Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Barient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Claims 1, 3 and 6-15 are directed to a method of recycling polycarbonate resin waste comprising, *inter alia*, “adjusting the OH group concentration of the polycarbonate waste component, wherein the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction.” (Emphasis added).

Buysch et al. disclose a process for the chemical recycling of polycarbonates by catalyzed reaction with diaryl carbonates to oligocarbonates. (Abstract). Buysch et al. are completely silent to adjusting the OH group concentration of the polycarbonate waste component before being subjected to either the transesterification reaction or the polycondensation reaction.

Rather, Buysch et al. at best disclose that:

it can be of advantage to facilitate or promote the polycondensation reaction by establishing a terminal OH to aryl carbonate group ratio of the reactants of >25% OH:<75% aryl carbonate to <50% OH:>50% aryl carbonate. This may be achieved, for example, by addition of bisphenol A in accordance with the calculated values. (Col. 6, lines 12-22).

Buysch et al. do not disclose when in the process bisphenol A is added to obtain the desired ratio of terminal OH to aryl carbonate group. More particularly, absent is any teaching that the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction.

Since Buysch et al. at least fail to teach adjusting the OH group concentration before being subjected to either of the transesterification reaction or the polycondensation reaction, Buysch et al. fail to teach or suggest at least one claimed element. Accordingly, independent Claim 1 is not anticipated and is therefore allowable over Buysch et al. Moreover, as dependent claims from an allowable independent claim, Claims 3 and 6-15 are, by definition, also allowable.

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Turning now to Claims 16-27, Claims 16-27 are directed to a method of recycling polycarbonate resin waste comprising, *inter alia*, the following elements: “melting a polycarbonate waste component, wherein the polycarbonate waste component has an OH group concentration and comprises polycarbonate resin waste; combining the prepolymerization composition with the melted polycarbonate waste component to form a combination.”

Buysch et al. are silent on a process of recycling polycarbonate where a prepolymerization composition is first formed from a dihydroxyl compound and a carbonate diester, which is combined with a melted polycarbonate waste component and then polymerized. Stated another way, Buysch et al. are silent to a process that makes a new polycarbonate from a prepolymerization composition that is combined with a melted polycarbonate waste component. At best, Buysch et al. teach chemically recycling of polycarbonates by catalyzed reaction with diaryl carbonates to oligocarbonates, which are crystallized, purified and then polycondensed back to polycarbonates. (Abstract). For at least the reason that Buysch et al. fail to teach the claimed elements relating to forming a prepolymerization composition and combining the prepolymerization composition with melted polycarbonate resin waste, Applicants' independent Claim 16 is not anticipated and is allowable over Buysch et al. Moreover, as dependent claims from an allowable independent claim, Claims 17-27 are, by definition, also allowable.

Further, even if the Examiner were to maintain the rejection with regards to independent Claim 16, additional patentable distinct features can be found in the dependent claims. For example, Claim 18 discloses that the “OH group concentration is adjusted before combining the prepolymerization with the melted polycarbonate waste component”. As noted above, Buysch et al. are completely silent to adjusting the OH group concentration of the polycarbonate waste component before combining the polycarbonate waste component with a prepolymerization component. As such, dependent Claim 18 is not anticipated and is allowable over Buysch et al. independent of finding independent Claim 16 allowable.

Additionally, in making the rejection, the Examiner stated

The reference discloses the recycling polycarbonate prepared from the same components as claimed by applicants. Since the disclosed parameters are expressed differently and thus may be distinct from those claimed, it is incumbent upon applicant(s) to establish that they are in fact different and whether such difference is unobvious.

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(O.A., page 4; emphasis added).

Applicants respectfully submit that all that is required to overcome an anticipation rejection is a showing that at least one claimed element is not disclosed. Applicants have shown that at least one claimed element was not disclosed by Buysch et al. It appears that the Examiner is attempting to couple an obviousness rejection with this anticipation rejection. If this is the case, in order to be fully compliant, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness, since at least one claimed element is not taught or suggested by Buysch et al.

For at least these reasons, Applicants respectfully request that the rejection be withdrawn and the claims be allowed.

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1, 3 and 6-27 are rejected additionally under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent Publication No. 2003/0065130 to Hahnsen et al.

Hahnsen et al. teach that “the polycarbonate used either already has an average concentration of phenolic terminal groups over 100 ppm OH . . . or this is adjusted in the melt by adding a bisphenol . . . or oligocarbonates having terminal OH groups.” (emphasis added; paragraph [0018]). Hahnsen et al. goes on to teach that, “[w]hen converting in the melt to higher molecular weights, volative portions that are split off are discharged from the reactor as vapors.” (emphasis added; paragraph [0018]). Absent in Hahnsen et al. is any teaching (express or inherent) of adjusting the OH group concentration of the polycarbonate waste component, wherein the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction.

Since Hahnsen et al. at least fail to teach adjusting the OH group concentration of the polycarbonate waste component before being subjected to either of the transesterification reaction or the polycondensation reaction, Hahnsen et al. fail to teach at least one claimed element. Accordingly, independent Claim 1 is not anticipated and is therefore allowable over Hahnsen et al. Moreover, as dependent claims from an allowable independent claim, Claims 3, 6-15 are, by definition, also allowable.

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Furthermore, Hahnsen et al. are silent on a process of recycling polycarbonate where a prepolymerization composition is first formed from a dihydroxyl compound and a carbonate diester, which is combined with a melted polycarbonate waste component and then polymerized. Stated another way, Hahnsen et al. are silent on a process that makes a new polycarbonate from a prepolymerization composition that is combined with a melted polycarbonate waste component. At best, Hahnsen et al. teach making polycarbonate by melting existing (used/recycled) polycarbonate. For at least the reason that Hahnsen et al. fail to teach the claimed elements relating to forming a prepolymerization composition and combining the prepolymerization composition with melted polycarbonate resin waste, Applicants' independent Claim 16 is not anticipated and is allowable over Hahnsen et al. Moreover, as dependent claims from an allowable independent claim, Claims 17-27 are, by definition, also allowable.

Additionally, even if the Examiner were to maintain the rejection with regards to independent Claim 16, additional patentable distinct features can be found in the dependent claims. For example, Claim 18 discloses that the "OH group concentration is adjusted before combining the prepolymerization with the melted polycarbonate waste component". As noted above, Hahnsen et al. teach adjusting the OH group concentration in the melt, and is completely silent to adjust the OH group concentration off the polycarbonate waste component before combining the polycarbonate waste component with a prepolymerization component. For at least this reason, dependent Claim 18 is not anticipated and is therefore allowable over Hahnsen et al. independent of finding independent Claim 16 allowable.

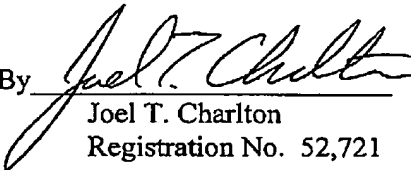
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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862.

Respectfully submitted,

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